SHEPTON MALLET
NHS TREATMENT CENTRE

OUTCOMES REPORT

2006 /07

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April 2006 – March 2007

Executive Summary

Introduction

Shepton Mallet NHS Treatment Centre has undertaken over 10,000 procedures in this period (over 15,000 since opening in July 2005). This second progress report sets out the results of continued achievement of this flagship NHS Treatment Centre.

Patients

- 100% of patients surveyed would "recommend us to a friend".
- The average wait from GP referral to surgery was 12 weeks (which included the OP appointment and diagnostics).
- SMTC scored "full marks" in a Department of Health "Choosing Your Hospital" ranking.

Clinical Quality

- Good outcomes and minimal complication rates have been achieved across a range of measures and as compared to other facilities.
- There continues to be 0% hospital acquired infections (MRSA and C-difficile) in terms of people admitted as in-patients at SMTC.

Clinical Services

- Clinical services have been extended so that SMTC now also offers specialist shoulder surgery.
- SMTC continues to achieve a 4 day Length of Stay for patients having total joint replacements.
- SMTC continues to provide the vast majority of procedures as day-cases.

Background

The Government started the Independent Sector Treatment Sector Programme in 2002, in line with its commitments in *The NHS Plan.* The ISTC programme lets contracts to independent sector providers to build and run healthcare facilities primarily for NHS patients. Shepton Mallet NHS Treatment Centre (SMTC) was one of the "first wave" projects established under the ISTC programme.

The SMTC contract was awarded on 18th August 2004 to UK Specialist Hospitals. UKSH is a UK based company and is owned by a consortium of UK and US institutional investors – see www.uk-sh.co.uk for full details on its ownership and management team. SMTC is UKSH's first UK hospital.

SMTC is a 4,000 square metre surgical hospital. It was built in record time (a 42 week build and 6 weeks commissioning programme). It achieved registration by the Health Care Commission at its first attempt and opened its doors to patients on 18th July 2005.

The facility has staff who are "additional" to the NHS. The 24 doctors are all on the Specialist Register and come from Europe, the US and other countries. The UKSH Specialists are experienced doctors with proven track records in their own countries. Selection was rigorous eg surgeons were selected after in-theatre observations. UKSH recruited doctors who wanted to live in the UK permanently rather than have rotas of "flying doctors". Nursing staff are a mix from the UK private sector and other parts of the world.

SMTC is a modern, purpose built surgical hospital. It has 4 Operating Theatres, 1 endoscopy room, an on-site sterilisation department, 34 In Patient beds (IP) (mostly double rooms with en-suites), 8 Out Patient (OP) rooms, a Radiology Department (MRI, Ultrasound and x-ray), extensive "point of care" pathology testing, blood bank, as well as a kitchen and cafe.

SMTC focuses on a range of routine, elective surgical procedures:

Specialty	Procedures	Annual Volume
Orthopaedics	Primary Joints Replacements	1,200
Orthopaedics	Arthroscopies, Carpal Tunnels etc.	3,000
Ophthalmology	Cataracts (and eye lid procedures)	2,500
General Surgery	Hernias, Cholecystectomies, Peri-anal	2,500
Endoscopy	Colonoscopies, Gatroscopies	2,500

SMTC can treat most types of patients. Its patient population is similar to district NHS hospitals (eg it has provided a total joint replacement for a 98 year old, it has treated patients with a BMI of up to 49), although those with unstable co-morbidities or severe systemic disease need to be treated in an acute hospital with critical care.

Activity

Since March 2006, SMTC has continued to increase its productivity and is now consistently running at over 100% of initial contracted value; in November over 1,000 procedures were completed.

In undertaking this, SMTC has achieved the following:

- In excess of 100% of "contract value" is being delivered over the course of the year. This means the OP and surgery delivery exceeds the contract agreed with the NHS.

- A 4[1] day Length Of Stay (LOS) for primary hip and primary knee replacements. This is based on ~1300 cases, roughly 50% hips and 50% knees. A 4 day LOS is a significant national achievement. The NHS average is 8 days (HES data 2005/6 – HRGs: HO4, H80, H81).

- 96% of all procedures (excluding hip and knee replacements) have been undertaken as day cases. This is much higher than national NHS rates for these procedures (see www.hesonline.nhs.uk).

- An average wait for treatment of around 3 weeks for an OP appointment and 12 weeks for the procedure, as measured from the date of referral[2]. This is well within NHS targets of 13 weeks (OPs) and 26 weeks (surgery) and exceeds the new NHS target of 18 weeks for Referral to Treatment (RTT).

SMTC continues to deliver a high level of productivity from 4 theatres and a single endoscopy room; the equivalent of, if not exceeding, some hospital's elective surgical caseload. 34 joints are regularly achieved as part of an overall casemix delivery of some 200 to 250 procedures per week.

[1] Average length of stay April 2006 to March 2007 for HRG's H04, H80 and H81 = 4.4 days.
[2] Average wait over the period February 2007 to March 2007: 3.4 weeks from referral to the facility to outpatients, and 12.4 weeks from referral to the facility to surgery.

Service Delivery and Innovation

As a new organisation and facility, SMTC has provided an opportunity to develop a new service delivery model. The philosophy has been to bring together the best elements of the NHS, the US and other countries. The ability to design this model afresh has enabled the development of complete and coherent care pathways. The key elements of this are:

- Patients are referred from primary care or from NHS "waiting lists" according to a pre-agreed referral process and set of criteria. Patients are asked to telephone the "SMTC booking centre" where they are offered a choice of dates and times for their OP assessment.

- Patients are sent a health care questionnaire in advance of attending for OPs, which determines the level of "pre-assessment" they receive at OPs. Patients are given individual timed slots for OPs and the average waiting time is 5 minutes to see the consultant.

- Patients attend on the day of surgery in individually timed slots i.e. one hour before their procedure, rather than in "batches". Virtually all patients are discharged on the day of surgery, except those who are referred for Hip, Knee, Shoulder and Lap Choles. Once discharged patients are telephoned within the first week to check their status and are followed up in OPs, depending on clinician orders.

SMTC has taken great care to run a safe, high quality service. There is always a resident medical officer on-duty in the hospital. During the day, SMTC has a Physician in the ward with access to a Cardiologist. There is also a rota of Specialists (surgeons and anaesthetists) able to assist.

There have been a number of clinical innovations in the service model:

- All Cataract patients have been routinely given topical anaesthesia (ie eye drops) rather than peribulbar injections or General Anaesthesia. This eliminates the risk associated with periocular needle injections and has permitted operating without stopping blood thinning agents.

- Hip and Knee Joint Replacements have been undertaken with spinal anaesthesia. This has promoted faster recovery. Patients are provided with high levels of individualised programmes of physiotherapy, available 7 days a week, in order to achieve patients' mobility goals and a 4 day Length of Stay.

- Most general orthopaedics (e.g. hand and feet cases) has been performed with regional or local anaesthesia.

SMTC has been careful to introduce this new model so that it is safe and can assure patients of a high quality service. SMTC will continue to deliver innovation, based on evidence of effectiveness and benefit to patients.

Clinical Outcomes

SMTC aims to provide a high quality clinical service. To achieve this it relies on high quality staff, implementing evidence-based protocols, using the latest equipment and techniques. SMTC underpins this with a robust clinical governance process. This ensures there is systematic collection of clinical data as well as regular reviews of processes and adverse events with the aim of reducing clinical risk.

All efforts have been made to collect comprehensive data. Patients, SMTC staff, GPs and local acute hospitals have been encouraged to inform SMTC and refer patients back to SMTC where any problem has arisen. SMTC's policy is to deal with all complications it can do so safely. All patients are given the SMTC 24 hour "help line" telephone number and encouraged to ring if they have any queries or problems. All patients are given a survey on discharge, providing an opportunity to capture data on any subsequent complications.

The overall results for SMTC (1 April 2006 – 31 March 2007) from over 10,000 procedures are set out below. Please note that some patients (indicated by *) refer to multiple events. For example, 1 of the patients with a PE is the same patient who was transferred to another provider for IP care.

Measure	Number	%
Unplanned return to theatre	20	0.209
Transfer of patient to another provider for IP care	13*	0.136
Deep Vein Thromboses	4	0.175
Pulmonary Embolism (PE)	8*	0.351
Hospital Acquired Infection	0	0.000
Post Discharge Wound Infection Needing Treatment	20	0.209
Mortality	1	0.010

NB: The patient death was a 70 year man with a total knee replacement who had some undiagnosed cardiac disease.

SMTC has achieved a 0% MRSA and C-Difficile rate for people admitted to the Treatment Centre since it opened in 2005.

These high level measures provide an indication of the service overall. However, such clinical measures only make sense when looked at in terms of the specialties and the procedures being provided. Attached is therefore a section each on (a) total joint replacements (b) general orthopaedics (c) general surgery/ endoscopy and (d) ophthalmology

SMTC and district general hospitals (DGHs) mostly see the same type of patients ie ASA scores 1-3 (stable). However, DGHs also see a small number of patients with more severe co-morbidities, which makes it hard to compare results directly. With that caveat in mind, SMTC's results (both above and in subsequent pages) nevertheless indicate a good, safe clinical service that is working within and exceeding expected clinical norms.

Total Joint Replacements

Surgeons

The Orthopaedic Team is led by Mr Per Sandquist, one of the leading joint replacement surgeons in Sweden. The team also includes, Mr Klaudiusz Kosowski (UK and Poland), Mr Frederik Ammitzboell (Denmark), Mr Yadu Shankarappa (UK), Prof Romanowski (Poland) and Dr Przemyslaw Lubiatowski (Poland).

The anaesthetic team led by Mr Peter Kimme (Medical Director), include Robert Rapcan, Nils Askelof, Jerzy Minecki, Gabor Vereczkey and Hans Soderlind.

Approach

All patients are seen pre-operatively by the operating surgeon, by a nurse and by a physiotherapist, and are encouraged to attend an extra group education session. Patients are admitted on the day of surgery. The main prostheses used are *Smith & Nephews* knee, the *Oxford* uni-knee, *Zimmer* cemented hips and *Depuy's* Corail stem and Pinnacle cup (uncemented). All patients are reviewed at 6 - 8 weeks in OPs.

Procedures

Primary Hip Replacements (un-cemented):
Primary Hip Replacements (cemented)
Primary Knee Replacements

Total = 1301

Results

Measure	Total	%
Unplanned return to theatre	12	0.92
Transfer of patient to another provider for IP care	11	0.85
Unplanned re-admission within 29 days of discharge	11	0.85
Unplanned revision surgery within 5 years	3	0.23
Mortality	1*	0.08
Acute Myocardial Infarction	1*	0.08
Pulmonary Embolism	7	0.54
Deep Vein Thrombosis	3	0.23
Cerebral Vascular Event	0	0.00
Hospital Acquired Infection	0	0.00
Post Discharge Wound Infection needing treatment	5	0.38
Dislocation % by hips only	2*	0.30

NB: SMTC is also measuring improvement according to the Oxford hip / knee score. These are more long term measures and not yet reportable.

General Orthopaedics

Surgeons

The Orthopaedic Team includes, Mr Marteinn Magnusson (Hand and Foot Specialist – Iceland); Mr Kluadiusz Kosowski (UK and Poland), Mr Frederik Ammitzboell (Denmark) and Mr Yadu Shankarappa (UK).

Approach

All patients are seen pre-operatively by the operating surgeon. Patients are usually seen by a nurse for pre-assessment for surgery. Patients are admitted on the day of surgery, with the expectation that all will be day cases. On discharge, patients are given contact information and encouraged to ring if they have any queries. All patients are telephoned the day after surgery. Most patients are called back for review at OPs at 4 weeks.

Procedures

Arthroscopies
Foot Procedures
Hand procedures
Other soft bone/ tissue

Total 2,696

Results

Measure	Total	%
Unplanned return to theatre	2	0.07
Conversion from day case to overnight stay	4	0.15
Transfer of patient to another provider for IP treatment	0	0.00
Unplanned re-admission within 29 days of discharge	9	0.33
Unplanned revision surgery within 5 years	0	0.00
Mortality	0	0.00
Acute Myocardial Infarction	0	0.00
Pulmonary Embolism	1	0.04
Deep Vein Thrombosis	1	0.04
Cerebral Vascular Event	0	0.00
Hospital Acquired Infection	0	0.00
Post Discharge wound infection needing treatment	4	0.15
Haematoma needing evacuation	0	0.00

General Surgery

Surgeons

The General Surgical Team includes: Mr Ben Mak (Holland), Mr Wojciech Czyz (Poland), and Mr John Brodribb (UK). Three UKSH Registrars (all of whom are on the UK Specialist Register) also undertake minor general surgical procedures.

Approach

Patients are seen at OPs by the operating surgeon and usually by a nurse. Endoscopies and minor skin procedures are booked directly. All procedures are expected to be day cases except cholecystectomies, which may be day case or IP depending on the patient's recovery. Hernias are undertaken by mesh repair. All cholecystectomies are given ultrasound and Liver Function Tests to determine whether they are laparoscopic or open. Patients return to OPs at 4 weeks, depending on clinician request.

Procedures

Hernia repair
Peri-anal
Cholecystectomies
Minor GS (skin excisions)
Endoscopies

Total: 3280

Results

Procedure	Measure	Total	%
All	Unplanned return to theatre	6	0.16
	Conversion from day case to overnight stay	24	0.63
	Transfer of patient to another provider for IP treatment	2	0.05
	Unplanned re-admission within 29 days of discharge	18	0.47
	Unplanned revision surgery within 5 years	2	0.05
	Mortality	0	0.00
	Acute Myocardial Infarction	0	0.00
	Pulmonary Embolism	0	0.00
	Deep Vein Thrombosis	0	0.00
	Cerebral Vascular Event	0	0.00
	Hospital Acquired Infection	0	0.00
	Post Discharge Wound Infection needing treat.	11	0.29
	Haematoma needing evacuation	1*	0.03
Cholecyst.	Duct Injury	0	0.00
	Bile leak	1*	0.48
	Retained common bile duct stones	0	0.00
	Bowel injury	0	0.00
Endoscopy	Significant bleeds	1*	0.05
	Perforation	0	0.00

Ophthalmology

Surgeons

The Ophthalmic team is led by Mr Melki (The Boston Massachusetts Eye and Ear Infirmary, USA), Mr Moayedi (Sweden), and Mr Mollander (Sweden).

Approach

All Cataract patients are seen pre-operatively by the operating surgeon and ophthalmic nurse. Complete eye exams including fundoscopy are performed. Biometry is via optical coherence biometry (IOL Master) or via immersion ultrasonic measurement (in cases where the IOL Master measurements are unreliable). All patients are routinely brought back at 4 weeks for follow up.

Procedures

Cataracts:
Minor Ophthalmic:

Total 2,277

Results (Cataracts)

Measure	UKSH Total	UKSH %	UK Nat Audit	AAO PPP
Chorodial expulsive haemorrhage	0	0.00	0.10%	0.00%
Anterior vitrectomy	0[1]	0.00	4.40%	0.00%
Corneal oedema	3	0.17		0.30%
Hyphaema	0	0.00	0.50%	0.40%
Iris damage from Phaco	0	0.00	0.70%	0.70%
PC Rupture with vitreous loss	14	0.77	4.40%	2.68%
Cystoid macular oedema	1	0.06	0.60%	2.30%
Hypopyon/ Endophthalmitis	1	0.06	0.03%	0.73%
Raised IOP	1	0.00	0.28%	1.00%
Uveitis	0	0.00	5.60%	3.10%
Would leak/ Rupture	1	0.06	0.25%	0.20%

AAO: American Association of Ophthalmoligists
Note: 1) Anterior vitrectomy only counted when not related to another complication.

Patient Satisfaction

SMTC has put in place the UKSH patient satisfaction programme with the aim of ensuring a high quality patient experience. This programme encompasses staff selection, staff training and well as regular feedback to staff on the patient satisfaction results, partly to motivate but also to ensure any weaknesses are addressed.

The service delivery is designed to support this programme:

- good travel directions with easy and ample car parking,
- one-stop OP visits (ie all diagnostics taken on the same day),
- timed visits so patients do not wait for OPs or surgery,
- on-site kitchen preparing healthy cuisine with fresh ingredients,
- double rooms with en-suite facilities.

All surgical patients are provided with a patient satisfaction questionnaire which they can return in the post subsequent to their treatment. The response rate is approximately 40%.

Patients reply to 10 questions according to a scale of 1 (bad) to 5 (excellent). SMTC measures satisfaction as including all responses graded 4 and 5. Responses between April and March (4,145) indicate the following:

Question	**% Satisfied**
Q1-How long did you wait after you had chosen to come to the Treatment Centre?	89
Q2-Were our booking staff helpful and efficient?	98
Q3-Was it easy for you to get to and park at the Treatment Centre?	84
Q4-How long did you have to wait before you were seen at Out Patients?	90
Q5-Did the Out Patient staff meet your expectations?	95
Q6-How long did you wait on the day of surgery?	87
Q7-Did the surgical staff meet all your expectations?	96
Q8-Did the ward staff (nurses, physios) meet your expectations?	96
Q9-Did the catering meet your expectations?	80
Q10-Was the Treatment Centre welcoming and clean?	99
Would you recommend the Treatment Centre to a friend?	**(Yes)100**

The overall ratings are high in all areas. Of particular note is that 100% of patients would “recommend SMTC to a friend”. This is a question also used by other healthcare organisations enabling comparisons to be made between providers.